REMARKS/ARGUMENTS

Claims 2, 4-5, 10, 12, 15 and 17-24 are pending in the application. Claims 2, 4-5, 10, 12, 15 and 17-24 are rejected. Claims 17-21 have been amended. Claims 1, 3, 6-9, 11, 13-14, and 16 were previously cancelled.

Specification

The listing of the Drawings on page 5 of the Specification inadvertently omitted reference to Figures 3a-c. The Specification has been amended to correct this typographical error. No new matter has been added.

Claim Objections

Claim 18 is objected to because of the following informalities: there appears to be a typo mistake in the double ";" at the end of 'and provide functionality for the application' (line 9). The typographical error has been corrected. No new matter has been added.

Claims Rejections – 35 USC § 112

Claims 2, 4-5, 10, 12, 15 and 17-24 are rejected under 35 U.S.C. § 112, second paragraph for insufficient antecedent basis for the recitation "application framework in the second layer" (cl. 17, li. 7; cl. 18, li. 7; cl. 19, li. 12; cl. 20, li. 13; cl. 21, li. 7). Claims 2, 4-5, 10, 12, 15 and 22-24 also stand rejected for not remedying this antecedent basis issue. In light of the amendments to claims 17-21, Applicants respectfully submit this rejection is now moot. Applicants therefore respectfully request withdrawal of the rejection under § 112, second paragraph.

Claims 2, 4-5, 10, 12, 15 and 17-24 are rejected under 35 U.S.C. § 112, first paragraph. Claims 17-21 have been amended in part to clarify the relationship between the application framework and application object repository framework and the generation of an application object repository based on changes to the application framework. In light of these amendments, Applicants respectfully request withdrawal of the rejection to claims 2, 4-5, 10, 12, 15, and 17-24 under § 112, first paragraph.

CLAIMS 2, 4-5, 10, 12, 15, AND 17-24 DEFINE OVER IYENGAR

Claims 2, 4-5, 10, 12, 15 and 17-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iyengar, U.S. Patent No. 6,874,146 (hereinafter "Iyengar"). For the reasons set forth below, the pending claims are not rendered obvious by Iyengar.

Representative claim 17 recites in part:

responsive to new application framework extensions, generating an application object repository supported by the application object repository framework and conforming to the application framework with the new application framework extensions, comprising:

generating application framework metadata representing the application framework with the new application framework extensions, and occupying the first layer in the multi-layer modeling architecture as meta-model data, wherein the ***new application framework metadata is generated using the repository constructs defined by the repository framework model*** in the second layer;

upon said generating, ***validating the generated meta-model data with respect to the repository framework model constructs***;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script;

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing the application framework extensions;

Iyengar fails to disclose this subject matter. The pending claims are directed to generation of an application object repository to store application development objects. The application object repository is generated in response to each time an application framework upon which the repository is based is modified through new application framework extensions or changes to the application framework. In order for the repository to take advantage of the additional functionality created by the extensions or changes, the repository is re-generated and an existing application development objects are migrated to the generated repository.

Iyengar, on the other hand, generally concerns integration of Unified Modeling Language ("UML"), Meta Object Facility ("MOF") Modeling, and XML to permit stream-based interchange of metadata, thereby allowing metadata to be transferred between UML- and MOF-based models and metamodels. Iyengar, however, does not disclose the actual ***generation*** of

repositories.

More specifically, Iyengar does not disclose generation of metadata of one metamodel (*i.e.*, the application framework including application framework extensions) using the constructs of a different metamodel (*i.e.*, the repository framework), where both the repository framework and application framework are defined by a common meta-metamodel. The Office Action cites generally to Figs. 2, 3, and 4 as disclosing this particular limitation. However, Figs. 2, 3, and 4 do not disclose this limitation; rather, while Fig. 2 does disclose the generation of Document Type Definitions ("DTD") and streams, DTDs merely define the syntax of an XML document and facilitate XML document ***exchanges*** between tools, a repository and tools, or between repositories. Iyengar, Col. 6, lines 32-33 and Col. 9, lines 4-7. Similarly, streams or XML documents generated using XML-based Metadata Interchange ("XMI") are able to be exchanged in a standard format. Fig. 3 discloses the use of an XMI module that receives a UML metamodel, MOF metamodel definitions, and XML syntax and encoding, and produces UML and MOF DTD and XML data streams, as well as Common Warehouse Metadata ("CWM") DTDs and streams and CORBA DTD and XML streams. While the XMI module may produce DTDs and documents related to different modeling schemes, Iyengar fails to disclose the ***generation of metadata*** of ***one metamodel*** based on the constructs of a ***different metamodel***. In merely illustrating a hierarchical relationship of a multi-tiered modeling scheme and the mechanisms by which metadata is exchanged among the various meta levels, Fig. 4 also fails to disclose this particular claim limitation.

Further, Iyengar fails to disclose validation of the generated metadata against the constructs from which the metadata was generated, as recited in the pending claims. The Office Action asserts that such a limitation is disclosed in Col. 9, line 40 to Col. 10, line 19 and Col. 10, lines 41 and 42. *See* Office Action of August 8, 2007, p. 8. These cited portions of Iyengar, however, fail to disclose any mention of or reference to ***metadata validation***. Rather, the cited portions only generally discuss the properties of MOF, and in particular MOF-based metadata and MOF models. While Iyengar discusses how MOF metadata belonging to a MOF model must conform to rules governing the model's structure and consistency, there is no inherent or explicit disclosure of validating generated metadata against the constructs of the model from which it was generated. To maintain a proper § 103 rejection, Iyengar must disclose, teach or

suggest this limitation.

Iyengar and Johnson also fail to disclose transformation of repository framework metadata into application object repository source files, including a database schema script, using a transformation template. First, the Office Action admits that Iyengar does not explicitly disclose transformation of repository metadata into repository source files, including a database schema script, using a predefined transformation template. *See* Office Action of August 8, 2007, page 8. Further, one of ordinary skill in the art would not be motivated by Iyengar to transform repository metadata into repository source files, including a database schema script. The Office Action asserts that based on the once-mentioned term "XSL," one of ordinary skill in the art would be motivated to use XSL to transform metadata into a database schema script. *See* Office Action of August 8, 2007, page 8. Even though Iyengar very briefly mentions XSL, reference to XSL is limited only to a way to create XML documents visually. Iyengar, Col. 3, lines 47-50 (XSL being a "What You See Is What You Get" editor). There is no reference to XSL's use as a transformation template for metadata, much less that metadata may be transformed using XSL into a database schema script. Based on this very limited disclosure of XSL, one skilled in the art simply would not be motivated to transform repository metadata into a database schema script or any other source file. Johnson, incorporated by reference into Iyengar, lacks any disclosure, teaching, or suggestion about transforming metadata into source files, including a database schema script. Accordingly, Applicants submit Iyengar and Johnson do not motivate or suggest to one of ordinary skill in the art the transformation of repository metadata into repository source files, including a database schema script, using a predefined transformation template.

The Office Action also admits that Iyengar and Johnson do not disclose generating repository schema from a database schema script. *See* Office Action of August 8, 2007, page 9. Based on the lack of a teaching, suggestion, or motivation to transform repository metadata into repository source files, as discussed above, one of ordinary skill in the art would not find it obvious to then generate repository schema from the database schema script as part of the application object repository generation process.

Thus, for at least all of the reasons set forth above, Applicants respectfully submit Iyengar does not render representative independent claim 17 obvious under 35 U.S.C. § 103. As

independent claims 18-21 contain similar limitations, claims 18-21 also are not rendered obvious under § 103. Further, as claims 2, 4-5, 10, 12, 15, and 22-24 depend from allowable independent claims 17-21, Applicants respectfully submit these claims also are not rendered obvious under § 103. Accordingly, reconsideration and withdrawal of the rejection to claims 2, 4-5, 10, 12, 15, and 17-24 under 35 U.S.C. § 103 are respectfully requested.

Request for Allowance

It is believed that this Amendment places the application in condition for allowance, and early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

The Office is hereby authorized to charge any fees, or credit any overpayments, to Deposit Account No. **11-0600**.

Respectfully submitted,

KENYON & KENYON LLP

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By: /Mark D. Yuan/
Mark D. Yuan
(Reg. No. 57,312)

KENYON & KENYON LLP
333 West San Carlos St., Suite 600
San Jose, CA 95110

Telephone: (408) 975-7500
Facsimile: (408) 975-7501